

REMARKS

Entry of this amendment is respectfully requested.

Claims 35-41, 43 and 44 were rejected under 35 U.S.C. §103(a) for allegedly being unpatentable over Bunz in view of Pope and McLean. Claim 42 was rejected under 35 U.S.C. §103(a) over Bunz, Pope, McLean and Teinturier. Claim 45 was rejected under 35 U.S.C. §103(a) over Bunz in view of Pope.

Applicants respectfully traverse each of these rejections.

Bunz teaches to use a single stem in such a way that a high level of strength with regard to tilting is achieved. According to Bunz, however, a large amount of construction space is required, because there is only one stem which has to be large enough to avoid a tilting movement sufficiently.

In the present application the outside of the sliding cup has a plurality of undulations. Each undulation acts to avoid tilting and for each undulation only a relatively small amount of construction space is required. The high level of strength with regard to tilting is achieved because of the plurality of undulations. Each undulation alone is not sufficient to avoid tilting.

Applicants reiterate that the Examiner alleges that Pope discloses "a substrate for attachment to a femoral head and an acetabular [sic] comprising of spherical segment depressions with a diameter from .001 in. up to .750 in. (col. 43, lines 15-35) undulating in section, and circumferentially arranged (fig. 3c) for the purpose of creating a mechanical interlock between adjacent layers of the hip prosthesis (col. 41, lines 23-25). The Examiner concludes that it would have been obvious to modify the sliding cup of the sandwich insert of Bunz with the undulating depression of Pope in order to achieve mechanical interlock as taught by Pope (citing Col. 41, lines 23-25). It appears, however, that the Examiner has construed the

purpose for which Pope provides the undulating section somewhat broadly, as the passage at Col. 43, lines 15-35 only teaches that surface modifications 353 were formed on the surface of sphere 350, which is a substrate which will receive the polycrystalline diamond layer, to increase the numbers of chemical bonds between the substrate and the diamond table to achieve a stronger polycrystalline diamond compact. (See Col. 41, lines 18-22).

Furthermore, Col. 41, lines 23-27 disclose that the substrate surface topographical features also serve to create a mechanical interlock between the substrate and the diamond table, and not merely between a sliding cup of a sandwich insert as disclosed by Bunz, and presumably, the outer surface of the inner sliding cup of Bunz.

The bonding between then polycrystalline layer and the substrate of Pope is clearly different than the connecting of two individual components, i.e., the inner sliding cup and the outer sliding cup of Bunz.

Since the sole purpose of providing surface features to a substrate of Pope is to receive a polycrystalline diamond layer, one of skill in the art would not modify the surfaces of the components of Bunz's prosthesis as suggested by the Examiner.

Furthermore, Pope sinters the polycrystalline layer to the substrate. Since Bunz's outer shell is plastic, one of skill in the art would not be led to combine Bunz with Pope since sintering as taught by Pope may deform or even destroy the plastic.

In view of the foregoing, allowance is respectfully requested.

The Commissioner is hereby authorized to deduct any fee associated with this filing from  
Deposit Account No. 50-0624.

Respectfully submitted,

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